

REMARKS

Status of the Claims

The present Office Action addresses and rejects claims 1, 4-35, and 56-63. At the outset, Applicants note that the Office Action lists claim 58 as pending and rejected, but Applicants previously cancelled claim 58. Correction is respectfully requested. Applicants respectfully request reconsideration in view of the remarks herein.

Claim Rejections Pursuant to 35 U.S.C. § 103

Claims 1, 4-11, 15-20, 29, 56, and 60-63 are rejected pursuant to 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,397,363 (“Gelbard”) in view of U.S. Patent No. 5,522,816 (“Dinello”). Applicants respectfully disagree.

Independent claims 1, 56, and 60 each recite, in relevant part, a connecting plate having a distal surface that can be positioned on a proximal terminal end surface of opposed arms of a rod receiving portion of a bone anchor.

The Examiner relies on Gelbard to teach the claimed invention but admits that Gelbard does not disclose a connecting plate with a distal surface that bears against a proximal terminal end surface of the opposed arms of the rod receiving portion of at least one of the bone anchors. The Examiner thus relies on Dinello for this feature, arguing that “[u]sing the known technique of providing a connecting plate along a proximal terminal end surface of a rod engaging member as taught by Dinello et al. would have been obvious to one skilled in the art.” Applicants disagree.

No person skilled in the art at the time the invention was made would modify Gelbard to have the connecting plate of Dinello. Not only would combining Dinello and Gelbard result in an inoperable device, there is no motivation for a person skilled in the art to combine Dinello and Gelbard in the first place.

Gelbard is specifically directed to a plate having openings that receive opposed arms of a bone anchor therethrough to allow a closure mechanism to be screwed to the opposed arms and secure the plate to the bone anchor. If the distal surface of the connecting plate were modified to

bear against the proximal terminal end of the opposed arms, the closure mechanism could not be mated to the opposed arms. As a result, the device would be inoperative as there would be no way to lock the connecting plate to the bone anchor.

Furthermore, a person skilled in the art at the time the invention was made would not have had motivation to combine the plate of Dinello with Gelbard. The Examiner only provided conclusory statements that it would have been obvious to combine the references without providing any reason why a person skilled in art would so combine the references. Such rationale should be explicitly made. (*See* MPEP § 2141.) As discussed above, the predictable result of using the plate of Dinello with the device of Gelbard would yield a non-functioning device, so at least for this reason, a person skilled in the art would not have combined Gelbard and Dinello. A person skilled in the art would further not be motivated to change the plate in Gelbard to have a distal surface that bears on the proximal terminal surfaces of the opposed arms because Gelbard specifically and repeatedly teaches the opposed arms feeding through the plate as a unique feature of the invention and as an objective of the invention. (*See e.g.*, Col. 2, lines 6-19 and 33-43.)

The Examiner suggests it would have been obvious for a person skilled in the art to alter the device of Gelbard in view of Dinello “with a set screw threadingly engaging the rod receiving portion, a cap to engage the set screw, and a buttress at an end of the plate.” However, such changes fundamentally alter the design of Gelbard and would not have been obvious to a person skilled in the art at the time the invention was made. Not only would Gelbard have to be modified as stated by the Examiner, Gelbard would have to be altered at least so its plate is threaded, so its plate has differently sized and shaped openings to accommodate the rod receiving portion, and so its opposed arms are not threaded. Without even a problem to solve, as Gelbard already secures its plate and screw, there is simply no reason why a person skilled in the art would overhaul Gelbard’s device to specifically exclude unique features and avoid stated objectives. Essentially, under the Examiner’s interpretation, Gelbard is entirely redesigned using knowledge acquired from the present application and using the Applicants’ claim as a roadmap. Such a suggestion is impermissible hindsight. (*See* MPEP § 2141.01(III).)

Moreover, Gelbard lacks a closure mechanism that extends through the connecting plate and

engages a bone anchor, as further required by claims 56 and 60. The Examiner does not appear to address this aspect of the claims or Applicants' previous remarks. As shown in Figure 1 of Gelbard, the only structures that extend through the connecting member 36 are first and second protruding members 22, 24. If these protruding members were considered a closure mechanism, Gelbard would be lacking a receiving portion with opposed arms, as specifically required by claim 56. The first and second protruding members 22, 24 of Gelbard cannot form both the claimed opposed arms and the claimed closure mechanism. Further, since protruding members 22, 24 are themselves an integral part of the bone anchor, they can not be said to engage the bone anchor.

Accordingly, independent claims 1, 56, and 60 are not obvious over Gelbard in view of Dinello and represents allowable subject matter. Claims 4-11, 15-20, 29, and 61-63 are allowable at least because they depend from an allowable base claim.

Claims 12-14, 30-35, and 57-59

Claims 12-14 are rejected pursuant to 35 U.S.C. § 103(a) as being obvious over Gelbard in view of Dinello and in further view of U.S. Publication No. 2004/0087949 ("Bono"). Claims 30-35 and 57-59 are rejected pursuant to 35 U.S.C. § 103(a) as being obvious over Gelbard in view of U.S. Publication No. 2004/0186474 ("Matthis"). Claims 21-27 are rejected pursuant to 35 U.S.C. § 103(a) as being obvious over Gelbard in view of U.S. Patent No. 5,366,455 ("Dove"). Claim 28 is rejected pursuant to 35 U.S.C. § 103(a) as being obvious over Gelbard in view of Dove and further in view of U.S. Patent No. 6,355,038 ("Pisharodi").

As explained above, Gelbard in view of Dinello does not make obvious independent claims 1 and 56. Bono, Matthis, Dove, and Pisharodi are all relied on for dependent claim features. Accordingly, dependent claims 12-14, 30-35, and 57-59 distinguish over Gelbard in view of Dinello and further in view of the various references cited by the Examiner at least because they depend from an allowable base claim and thus represent allowable subject matter.

Conclusion

Applicants submit that all claims are in condition for allowance, and allowance thereof is respectfully requested. The Examiner is encouraged to telephone the undersigned attorney for Applicants if such communication is deemed to expedite prosecution of this application.

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Respectfully submitted,

Electronic Signature: /Christina M. Sperry/
Christina M. Sperry
Registration No.: 47,106
NUTTER MCCLENNEN & FISH LLP
World Trade Center West
155 Seaport Boulevard
Boston, Massachusetts 02210-2604
(617) 439-2394
(617) 310-9394 (Fax)
Attorney for Applicant